

LISTING OF THE CLAIMS

Claims 1-36 are pending. Please amend claims 2-36. No claims have been canceled, added or withdrawn. The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Original) A method comprising:

decoding an enhancement layer bitstream from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

determining data throughput characteristics of a network coupled to a client computing device;

calculating a new HQRB based on the data throughput characteristics; and

encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device; and

wherein the base layer is not decoded for streaming to the client computing device.

2. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

3. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

4. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein calculating the new HRQB further comprises:

responsive to identifying the relatively low data throughput, selecting the new HRQB to be lower than the high HRQB.

5. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein calculating the new HRQB further comprises:

responsive to identifying the relatively high data throughput, selecting the new HRQB to be the same or higher than the high HRQB.

6. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the encoding further comprises determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer.

7. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the method further comprises streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

8. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the method further comprises encoding video data to generate the one or more enhancement layers and the base layer.

9. (Currently amended) A ~~The method as recited in~~ of claim 1, wherein the method further comprises determining networking and/or video presentation capabilities of the client computing device, and wherein calculating the new HQRB further comprises formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.

10. (Currently amended) A computer-readable medium ~~comprising encoded~~ with computer-executable instructions that when executed by a processor implement operations comprising for:

decoding an enhancement layer bitstream from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

determining data throughput characteristics of a network coupled to a client computing device;

calculating a new HQRB based on the data throughput characteristics; and

encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device; and

wherein the base layer is not decoded for streaming to the client computing device.

11. (Currently amended) A ~~The computer-readable medium as recited in~~ of claim 10, wherein the computer-executable instructions for encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

12. (Currently amended) A ~~The computer-readable medium as recited in~~ of claim 10, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

13. (Currently amended) A ~~The computer-readable medium as recited in~~ of claim 10, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein ~~the computer-executable instructions for operations for~~ calculating ~~the new HQRB~~ further comprise operations, ~~instructions for~~ responsive to identifying the relatively low data throughput, for selecting the new HQRB to be lower than the high HQRB.

14. (Currently amended) A ~~The~~ computer-readable medium as recited in of claim 10, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein ~~the computer-executable instructions for operations~~ for calculating the new HRQB further comprise operations, instructions, responsive to identifying the relatively high data throughput, for selecting the new HRQB to be the same or higher than the high HRQB.

15. (Currently amended) A ~~The~~ computer-readable medium as recited in of claim 10, wherein ~~the instructions for operations for encoding~~ further comprise operations for instructions for determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer.

16. (Currently amended) A ~~The~~ computer-readable medium as recited in of claim 10, wherein the ~~computer-executable instructions further comprise instructions for operations further comprise operations for~~ streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

17. (Currently amended) A ~~The~~ computer-readable medium as recited in of claim 10, wherein the ~~computer-executable instructions further comprise instructions for operations further comprise operations for~~ encoding video data to generate the one or more enhancement layers and the base layer.

18. (Currently amended) A ~~The~~ computer-readable medium as recited in of claim 10, wherein the ~~computer-executable instructions further comprise~~

~~instructions for operations further comprising operations for~~ determining networking and/or video presentation capabilities of the client computing device, and wherein calculating the new HQRB further comprises formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.

19. (Currently amended) A computing device comprising a processor coupled to a memory, a ~~the memory comprising being encoded with~~ computer-program instructions executable by the processor ~~to implement operations comprising for:~~

decoding an enhancement layer bitstream from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

determining data throughput characteristics of a network coupled to a client computing device;

calculating a new HQRB based on the data throughput characteristics; and

encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device; and

wherein the base layer is not decoded for streaming to the client computing device.

20. (Currently amended) A The computing device ~~as recited in~~ of claim 19, wherein the computer-executable instructions for encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

21. (Currently amended) A The computing device ~~as recited in~~ of claim 19, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

22. (Currently amended) A The computing device ~~as recited in~~ of claim 19, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein ~~the computer-executable instructions for the operations~~ for calculating the new HRQB further comprise operations instructions, responsive to identifying the relatively low data throughput, for selecting the new HRQB to be lower than the high HRQB.

23. (Currently amended) A The computing device ~~as recited in~~ of claim 19, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein the ~~computer-executable instructions~~ operations for calculating the new HRQB further comprise operations instruction, responsive to identifying the relatively high data throughput, for selecting the new HRQB to be the same or higher than the high HRQB.

24. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 19, wherein the ~~computer-executable-instructions~~ operations for encoding further comprise ~~instructions~~ operations for determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer.

25. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 19, wherein the ~~computer-executable-instructions~~ operations further comprise ~~instructions~~ operations for streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

26. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 19, wherein the ~~computer-executable-instructions~~ operations further comprise ~~instructions~~ operations for encoding video data to generate the one or more enhancement layers and the base layer.

27. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 19, wherein the ~~computer-executable-instructions~~ operations further comprise ~~instructions~~ operations for determining networking and/or video presentation capabilities of the client computing device, and wherein calculating the new HQRB further comprises formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.

28. (Currently amended) A computing device comprising processing means in a tangible computer-readable medium, the processing means comprising:

means for decoding an enhancement layer bitstream from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

means for determining data throughput characteristics of a network coupled to a client computing device;

means for calculating a new HQRB based on the data throughput characteristics;

means for encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device; and

wherein the base layer is not decoded for streaming to the client computing device.

29. (Currently amended) ~~A. The computing device as recited in~~ of claim 28, wherein the ~~computer-executable instructions~~ means for encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

30. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

31. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein the means for calculating the new HRQB further comprise, responsive to identifying the relatively low data throughput, means for selecting the new HRQB to be lower than the high HRQB.

32. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein the means for calculating the new HRQB further comprise, responsive to identifying the relatively high data throughput, means for selecting the new HRQB to be the same or higher than the high HRQB.

33. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, wherein the means for encoding determine motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer.

34. ((Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, ~~further comprising wherein the processing means comprise~~ means for encoding video data to generate the one or more enhancement layers and the base layer.

35. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, wherein the ~~computing device further comprises~~ processing means further comprise means for streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

36. (Currently amended) A ~~The~~ computing device ~~as recited in~~ of claim 28, wherein the ~~computing device further comprises~~ processing means further comprise means for determining networking and/or video presentation capabilities of the client computing device, and wherein the means for calculating the new HQRB further comprises means for formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.